Modernizing IT in the Energy Sector: How ServiceNow is Changing the Game

Energy companies are under more pressure than ever to modernize. Evolving regulatory requirements, aging infrastructure, growing cybersecurity exposure, and leadership expectations around operational efficiency are all landing at the same time. But the modernization journey in energy looks fundamentally different from how it does in most other industries, and the approach has to match that reality.

The Longevity Problem

Most enterprise IT environments refresh every three to five years. Energy companies buy infrastructure designed to run for 30, 40, sometimes 50 years. That's not a flaw in how the industry operates. It's the nature of a sector built around physical assets, operational continuity, and capital-intensive investment cycles, in which pricing and spending require regulatory approval. That longevity creates a technology problem that compounds quietly over time:

- Systems get layered on top of systems across decades of operation
- Integrations get built to solve immediate problems without a long-term architecture in mind
- Documentation consistently lags behind reality
- Institutional knowledge lives in people's heads, not in any system of record

The numbers reflect the scale of the challenge. According to the U.S. Department of Energy, the average age of large power transformers in the U.S. is over 40 years. Nearly 70% of the nation's grid transmission lines are over 25 years old. That's not just an infrastructure problem. It's a data problem, because nobody has a clean picture of what they own, what it costs, or how it all maps to the services that depend on it.

By the time an organization decides it's time to modernize, that's almost always the starting point.

Data First, Everything Else Second

Before ServiceNow can deliver on its full potential in an energy environment, organizations need to get their foundational data right. That means:

- Building and managing a CMDB that actually reflects the current environment
- Standardizing integrations so data flows consistently between systems
- Aligning technology assets to defined services using ServiceNow's Common Service Data Model
- Ensuring every asset has a known owner, cost, lifecycle status, and service relationship

“Overall, this project removed 1.1 million records from our environment. That’s a colossal amount of data.”

— Project Sponsor, Leading Energy Provider

This work is the prerequisite for everything ServiceNow can deliver. Consider what becomes possible when the foundation is solid:

- Automated ticket routing works because the CMDB knows which team owns which asset
- Compliance reporting reflects the actual environment, not a snapshot from three years ago
- Leadership gets real visibility into the cost and health of the technology portfolio
- Incident resolution times drop because context is built into the workflow, not chased down manually

Research from ServiceNow shows that organizations with mature CMDB practices resolve incidents up to 40% faster than those without. In an industry where unplanned downtime can cost hundreds of thousands of dollars per hour.

The Cultural Dimension

Technology is actually the easier part of this problem. The harder part is people.

Energy organizations tend to have long-tenured workforces, with some studies showing average employee tenure in utilities running nearly double that of the broader technology sector. People who have been doing their jobs the same way for 20 years, who are genuinely good at those jobs, and who reasonably question whether a new platform is going to make their work better or just different.

That skepticism isn't irrational. It's a reasonable response after watching technology initiatives come and go without delivering on their promises.

What separates successful ServiceNow implementations in this sector from unsuccessful ones isn't the configuration or the feature set. It comes down to a few things:

- Executive sponsors who are personally invested in the outcome, not just signing off
- Clear communication about how the platform makes individual jobs easier
- Adoption metrics tracked alongside technical milestones
- Governance structures that give the platform a long-term owner inside the organization

Without that organizational commitment, even a well-designed ServiceNow implementation stalls. With it, organizations that seem culturally resistant to change can move faster than anyone expected.

Why ServiceNow Fits the Energy Sector

Energy companies face a range of overlapping challenges that other industries don't deal with at the same scale. All of the following typically need to be managed simultaneously:

- IT service management and help desk operations
- Separate, segregated environments for regulated domains like nuclear
- IT operations management and event monitoring
- OT asset lifecycle management
- Governance, risk, and compliance across both IT and OT environments
- Vulnerability response and security operations

The instinct is to solve each problem with a dedicated tool. But the cumulative effect is a fragmented stack where data lives in silos, integrations are brittle, and the total cost of ownership is higher than anyone planned for. Gartner estimates that organizations running more than 10 point solutions for IT management spend up to 30% more on operations than those on consolidated platforms.

"At some point you realize the integrations between your tools cost more to maintain than the tools themselves. That's when consolidating onto a single platform stops being a nice-to-have."

— IT Director, Leading Energy Provider

ServiceNow changes that equation. When ITSM, ITOM, GRC, vulnerability management, and security operations all run from the same underlying data model:

- Incidents trace back to known assets automatically
- Assets map to affected services without manual lookup
- Compliance obligations are evaluated in context, not in a separate workflow
- When NERC CIP requirements shift, or a new NIST framework rolls out, the platform adapts rather than forcing another procurement cycle

For an industry that has historically moved slowly and needs to close a significant gap between where it is and where it needs to be, that consolidated approach is a meaningfully faster path forward.

What Good Looks Like

The energy organizations making real progress share a few things in common:

- They invested in foundational data quality before chasing advanced capabilities
- Executive leadership is genuinely driving transformation, not just approving it
- ServiceNow is treated as a product with ongoing governance, not a one-time implementation
- They've resisted solving every new problem with a new tool, building toward a unified operational model instead

The results bear that out. Organizations that consolidate IT, OT, and compliance workflows onto a single platform report significant reductions in manual effort, faster audit cycles, and better visibility into operational risk across the enterprise.

Modernizing IT in the energy sector is genuinely hard. The infrastructure is old, the regulatory environment is complex, and change doesn't come naturally to organizations built around stability. But the ones approaching it with discipline, starting with data, earning adoption through demonstrated value, and consolidating onto ServiceNow as the platform of record, are the ones coming out ahead.

The foundation isn't the exciting part. But it's what makes everything else actually work.

About Windward Consulting Group

Windward Consulting Group is a U.S.-based ServiceNow Elite Partner delivering enterprise IT consulting services across ITSM, ITOM, and Security Operations. With a focus on service reliability for Fortune 500 companies and Public Sector organizations, Windward partners with clients to design, implement, and optimize ServiceNow platforms that drive measurable business outcomes.